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Biography

Suyeon Kim , is a dedicated second-year medical student at Western University of Health Sciences, based in Pomona, USA. She is actively engaged in medical education and academic research, with a strong interest in advancing clinical knowledge and evidence-based practice. Through her academic training, Miss Kim is developing a solid foundation in patient care, clinical reasoning, and medical research. She is committed to contributing meaningfully to the healthcare field through continuous learning and professional development.

Suprascapular Nerve Block As An Adjunct To Physical Therapy For Adhesive Capsulitis: A Systematic Review

Abstract:

Introduction: Adhesive shoulder capsulitis is a pathological condition describing excessive scar tissue formation and adhesions within the glenohumeral joint. Recently, combining suprascapular nerve block (SSNB) with structured physical therapy (PT) has emerged as a strategy to reduce pain and facilitate more effective shoulder mobilization. This review aims to assess the current literature and compare clinical outcomes and range of motion (ROM) in SSNB as an adjunct to physical therapy.

Methods: This systematic review was conducted in accordance with the PRISMA guidelines to evaluate studies comparing suprascapular nerve block (SSNB) combined with physical therapy (PT) versus PT alone in patients with adhesive capsulitis. PubMed and Google Scholar were systematically searched for relevant studies. Pre- and post- treatment changes in SPADI pain and disability scores, as well as improvements in ROM, including external rotation, internal rotation, and abduction, were analyzed to determine the efficacy of SSNB as an adjunctive intervention. Mean differences, ranges, and p-values were extracted and analyzed to evaluate comparative trends between treatment groups.

Results: This review included 8 studies with 673 patients, 334 of whom were treated with SSNB + PT and 339 with PT alone. The follow-up durations ranged from 6 weeks to 9 months. External rotation improved by 9–42° with SSBT + PT versus 7–50° with PT. Among the six studies that evaluated abduction, increases ranged from 54–73° in SSBT + PT groups compared with 39–62° in PT groups. Four studies reported internal rotation gains of 14–33° with SSBT + PT and 8–26° with PT. Five studies assessing SPADI pain and disability demonstrated mean reductions of 9–26 and 7–15 points, respectively, favoring the combined approach. Overall, SSBT + PT yielded superior improvements in range of motion, pain, and functional disability for adhesive capsulitis compared with physiotherapy alone.

Conclusion: The findings of this review indicates that SSNB combined with PT provides greater pain relief and improved shoulder ROM compared to PT alone in patients with adhesive capsulitis. By reducing pain during mobilization, SSNB allows more effective participation in rehabilitation and supports functional recovery. Although results are promising, additional high-quality studies are needed to standardize treatment protocols and confirm long-term outcomes.